

University of Denver (Colorado Seminary) Penrose Library
2199 S. University Blvd.
Denver, CO 80208-2121

Title: "Western Trails: A Museum/Library Collaborative in Western States"

Abstract

In 1999, IMLS funded the Colorado Digitization Project (CDP). This project presented a way to establish and test the vision dubbed the **C4 Model**. Throughout the two year project, testing and implementing the **C4 Model** has been our goal:

Through library and museum *collaboration*, the institutional *capacity* for digitization and dissemination is enhanced; access to digital *content* is expanded; and the end-user *capability* to learn is enriched; and libraries, museums, archives, and historical societies are recognized as *vital resources* for their communities' commerce, education, recreation, research, and lifelong learning.

The CDP began meeting with librarians, archivists and curators from other Western states, to explore the feasibility of expanding *collaboration* and *capacity* for digitization, developing additional *content*, and enhancing end user *capability* by creating a Digital Library of Western Heritage through a multi-state, cross cultural heritage institution initiative. This proposed project involves representative museums and libraries from Kansas, Nebraska, Wyoming, and Colorado. The project will:

- Explore the degree to which the Colorado Digitization Project (CDP) model for collaboration can be used in other states.
- Explore the issues related to the development of infrastructure for a Digital Library of Western Heritage-
- Test development of a collection of digital primary source materials on Western Trails owned by the participating institutions from several states as a pilot project.
- Provide the general public with access to this virtual collection on the Western Trails.
- Disseminate to the library and museum community the new models developed by adaptation/adoption of the CDP C4 model.

Through a series of meetings with library and museum leaders from western states, we have gathered information about the factors which would lead to adaptation of the CDP structure for establishing other statewide collaborative digitization projects. The proposed project will test the extensibility of major components of the Colorado project: task force-based decision making, steering committee management, decentralized metadata creation, centralized databases and a metadata data entry system, regionally-based training programs, and decentralized image capture, by museums and libraries in three western states. The project will also test issues related to searching collections across libraries and museums in the states involved in this project. The Colorado solution to interoperability, *Heritage* (a user interface to databases based on the OCLC SiteSearch software), is available to other states. Some of the states will explore their own state-wide solution to interoperability. This effort will lead to development of state-based implementations that demonstrate the adaptability of the Colorado process.

The content development portion of this project must also be emphasized. The pilot project will demonstrate interstate collaboration in creating a new resource that is designed to be useful to the general public, the K-12 community, life long learners, as well as scholars. The topic of Western Trails has broad public interest. Additionally the participating libraries and museums hold a wide range of resources associated with Western Trails. The project is designed to show how information resources support a cultural heritage subject that extends beyond geographic and political boundaries. Users will be able to use these resources through web-based exhibits, as well as access them through the interoperability solution.

We expect the **C4 Model** will persist regardless of the state-based variations of the CDP collaborative process and the adaptations or adoptions of the CDP technology infrastructure. We believe organizational and cultural heritage transformations will occur in the partner states as a result of collaboration on this project.

Narrative

Background:

For general background information on the Colorado Digitization Project, see Appendix A.

In September, 1998, the Western Council of State Librarians sponsored a conference, *Planning for Digitization: Bringing down another barrier to access*, bringing more than 150 participants from across the U.S. to a two-day introduction to digitization and the opportunities for museum/library collaboration. This meeting kicked off the planning effort for the CDP .

In summer, 1999, the CDP began exploring the opportunities of multi-state collaboration with the state librarians and university libraries from Colorado, Arizona and Utah. The primary objective was to explore the feasibility of developing a preservation-oriented archive for the digital resources that Western libraries and museums were creating. During this initial session participants indicated that in addition to creation of a shared digital archive, there was a need for a common set of standards, training, a need to address the copyright issue and how we would create connections across our search platforms. In October, 1999, the Montana State Library held a meeting of representatives from the western State Libraries regarding future resource sharing opportunities. There was significant interest in development of statewide digitization initiatives and in the CDP process of collaborative digitization. A survey of digitization activities of 21 state libraries, the major research libraries in each state, nine major public libraries and two to three major museums, archives, and historical societies in each state was conducted in November, 1999 by the CDP and the Colorado State Library. This survey identified issues and concerns as well as digitization projects already underway. A planning session during ALA Midwinter, 2000 helped define the scope of a day long meeting in February, 2000. More than 45 librarians, curators and archivists from 18 states attended this Denver meeting. This meeting highlighted the benefits of a collaborative initiative, the barriers, and possible next steps. Key to development of additional collaborative digitization initiatives included development of a knowledge base on digitization, identification and development of leadership for digitization, adoption of standards for metadata and scanning, development of a toolkit to facilitate a multi-state initiative, and training. In January and February, 2001, Liz Bishoff, CDP Project Director, Nancy Allen, and other members of the CDP Steering Committee met with representatives from six western State Libraries to explore the interest in and feasibility of a multi-state cross cultural heritage institution initiative. From these meetings evolved the Western Trails Project.

The Project Proposal:

This project proposes to bring together several Western states in a collaborative digitization project. The project will include a mixture of archives, historical societies, libraries and museums from Colorado, Kansas, Nebraska and Wyoming. These four states share common borders, common heritage and common customs. Because there must be a project coordinator at the state level, we asked the Kansas, Nebraska and Wyoming state libraries to take on this role, as state libraries are the only consistent entity that exists in all the states. The Colorado Digitization Project will play this role for Colorado. The Colorado State Library will be a partner in the project serving in a technical consulting and support role. The State Libraries are the Project Partners and have agreed to work to develop a state collaborative involving all four cultural heritage institution types. To embody collaboration at the overall Western Trails Project level, the Denver Museum of Nature and Science (DMNS), a founding collaborator of the Colorado Digitization Project, will serve as the applicant collaborator. The DMNS will also be one of the project participants, and will serve as a member of the Western Trails Steering Committee. Within each state there are four to six cultural heritage institution project participants. Each state is identifying a project coordinator who will work part time (10-15 hrs/week) on the project. Each project participant will have a part-time project coordinator (4-5 hrs/week). The CDP's project director will be responsible for the overall coordination and management of the project. The project will use a series of working groups to conduct the work of the collaborative. The groups include: metadata standards, scan standards, web

design, collection development, etc. A Western Trails Steering Committee including the Principal Investigator, the Project Director, a representative from the DMNS, and one representative from each state will oversee the project. The CDP Steering Committee can serve as a resource for the project, and will serve as an advisory panel.

Appendix B shows project partners and proposed participants and their collection.

Detailed goals, objectives, outcomes, and activities and timeline are found in Appendix C. The primary goals and objectives of the project include:

- ❖ *Development of state-based collaboratives among museums and libraries interested in digitization, each of which is adapted from the Colorado Digitization Project.* The state collaboratives will work through the C4 Model. Each state will develop a collaborative, identifying areas of variance from the CDP model. This review will be central to the project, since each state must respond to differing issues in developing their collaborative. Examples of unique considerations include the current level of museum/library collaboration, experience with digitization, demographics and politics of the state, technology infrastructure, and funding options. Objectives related to this goal are the C4 Model elements:
 - *Increase the capacity of institutions to engage in collaborative digitization, including agreement on a common set of standards for scanning and metadata, resource sharing and legal issues, and interoperability.* Through working groups with representatives from the participating institutions and states, the project will develop multi-state standards for metadata, scanning, and solutions for multi-state interoperability. A training program will increase knowledge of these issues in participating institutions.
 - *Increase the capability of end users to identify and use digital primary resource collections by providing solutions for interoperability among multiple states and multiple cultural heritage institutions. Provide end users options to search and explore the networked, distributed Western Trails collections.* Web sites, web exhibits, web-mounted catalogs, and convenient, flexible user interfaces will all be made available to enable the public to locate and use newly accessible primary sources. The area of interoperability is the most complex. Our definition of interoperability ranges from the adoption of common metadata standards, to use of the same platform for all participants to a networking of different computers and systems. Discussion of metadata standards is critical to selection of the interoperability solution. Libraries have made significant strides in this area over the last decade, with the implementation of Z39.50 library systems, all participating libraries' systems support the Z39.50. Unfortunately, archives, museums and historical societies have not realized until recently the importance of a protocol like Z39.50. Web searching is particularly problematic when dealing with the digital primary source materials. We all recognize the problems with retrieval on the web, including too many hits or erroneous hits. Institutions frequently create metadata for their digital collections on either a database or provide access through their online catalog. Standard web search engines cannot retrieve "hits" from within these databases, making these unique items unretrievable via standard search engines. Even some of the best like 'Google' and Alta Vista, which can locate Encoded Archival Description (EAD) Collection level records with an exact title search, cannot do a keyword or term search within the body of the EAD record and therefore cannot retrieve materials on that subject.

Since we are aware of these issues, we have identified several interoperability options for this project. The first is to use the existing Dublin Core based, CDP *Heritage* database operated on OCLC SiteSearch software that can be replicated to support views for each state or can be expanded to include all projects under *Heritage*. The second option is for each state to make their collections available on a Z39.50 compliant system/s. For example Wyoming proposes to create a separate database on their WYLD statewide catalog operating on DRA software. As *Heritage* is Z39.50 compliant, interstate searching is possible by connecting to and searching other Z39.50

systems. Scanning standards are probably the least challenging of all. There is increasing agreement on appropriate best practices, and full information is already available on the CDP website. Little or no development is necessary and the proposed training program covers the topic of scan standards and practices.

- *Conduct a pilot project that will allow the participants to test the commonly agreed to standards, creating digital content on the topic of Western Trails, and test the interoperability solutions.*
The pilot project will involve Western Trails-related collections from cultural heritage institutions in Colorado, Nebraska, Kansas, and Wyoming. Approximately 20,000 new digital images will be created and made accessible through user interfaces designed and managed by project participants and the CDP. Western Trails is being broadly identified from the Pre-historic trails through the current interstate highway system, including the widely known trails such as Santa Fe Trail and Overland Trail. The project website will present a multi-faceted/interdisciplinary approach to trails including samples of trails, why trails developed, what motivated people to follow the trails, and other perspectives relating to the trails including Western Trails in literature, the role of health and water in the development of the trails, etc. A major component of the pilot is to test the feasibility of developing a virtual collection of materials housed in multiple states and in multiple types of cultural heritage institutions. The principal reasons for selection of the topic of Western Trails were a broad based public interest, participation by a range of cultural heritage institutions across the states, and the importance of the topic in the development of the West. For the Colorado contributions, an effort will be made to include participants from the current project who have already been trained as well as several new participants. They will be creating 14,000 images. The other states, which will require some startup time, will be required to produce 2,000-2,500 images per state.

This goal and the prior one will lay the foundation for a future Digital Library of Western Heritage.

- ❖ *Enable a greater understanding of museum/library audiences, especially through their digital environments.* The CDP will share its experiences with market segmentation analysis, a process which has helped increase understanding of the extent of commonality of purpose across cultural heritage institutions. This is a positive element of collaborative project planning that will help participating institutions solidify partnerships.
- ❖ *Examine the issues and factors that influence the ways the CDP collaborative process must be modified in other states.* Each state will prepare a customized variation of the CDP collaborative process of implementing the C4 Model. This is critical to testing the extensibility and adaptability of the Colorado experience in differing political, geographical, and collaborative environments.

Each of the participants agreed that the focus of this initiative will be to adopt and adapt the CDP process where possible, rather than developing new models, new standards and new technology. But collaboration in a multi-type institutional environment is complex, and we are very interested in seeing how the states apply Colorado's experience, and how that process must be changed or managed. Additionally the project will report experience and new issues and solutions in multi-state, multi-cultural heritage institution collaboration.

Needs Assessment

Environment of the West: Collectively, Western cultural heritage institutions hold a vast amount of information that is distributed across many organizations and millions of square miles. This information is difficult to locate both within the institutions and on the web. Funding and collection resources are distributed in ways determined by history not rationality, and these disparities are magnified by geographic distances and geographic isolation. Culture of the west isn't defined by geopolitical boundaries; rather our heritage crosses many states. Concepts of independence, and rugged individualism permeate decision-making to this day, and while such barriers to collaboration and interdependency can be overcome, they are illustrated in development of independent practices, software purchases, and

metadata choices. Further, states have a great deal of pride in their own abilities to develop leadership and project management skills, and have shown reluctance to join another state's leadership initiative. For this reason, a collaborative is a preferable way to develop leadership skills on a state-by-state basis, compared to joining a new organization.

Expressed needs: One of the primary purposes of our many meetings with western state partners and potential partners was needs assessment. Throughout our discussions with partners and potential partners in other western states, we have identified a number of needs. There is a high level of interest and expressed need for a collaborative approach to digitization, not only on a state wide basis but across the region. Having stated that "big picture" need, the conversations identified specific needs and issues related to moving ahead on the big picture.

- ❖ There is growing awareness that collections of interest to each type of cultural heritage institution exist in other types of institutions. In other words, libraries are discovering museum collections, and museums are discovering library collections that jointly could support learning. There is a need to collaboratively develop a 'virtual' set of digital resources (primary sources and special collection materials) that:
 - Expand people's ability to use and interpret new and different information for problem solving.
 - Reduce or eliminate barriers to access--geographic, physical, cultural, gender, etc.
 - Help people gain a better understanding of our common heritage and its role in influencing our future.
 - Expand the user base for these resources.
 - Increase access to the resources, while preserving the original-
- ❖ Standards and best practices are emerging but existing descriptive standards need to be accommodated. There are a variety of standards and software used by different institutions.
- ❖ The traditional technology leaders with advanced technology applications in the area of digitization are not necessarily inclined to be the leaders in development of collaboratives. Therefore, leadership in collaboration is not necessarily the same as leadership in digitization. Small libraries or museums can be collaborative leaders.¹
- ❖ Technology solutions have to suit all cultural heritage partners. Standards used by one type of cultural heritage organization cannot be assumed to work for another. Therefore, interoperability rather than use of exactly the same type of metadata standards (e.g. AACR-2) seems to be the best answer to common access. At the same time, many potential partners expressed a need for tools such including sharable templates, programming, and software to support project management.
- ❖ There is increased user demand for access to special collections and resources felt to be related to state K-12 learning and teaching standards.
- ❖ Differences in markets across museums, libraries, archives and historical societies are not as great as we have thought them to be in the past. Collaboration and controlled competition for funding is a reality.
- ❖ Different levels of expertise exist on all aspects of digitization in different institution types. At the same time, there is a great deal of interest in learning more and launching new projects. There is a high level of need expressed for consultation, training, and general information about digitization in all types of cultural heritage institutions that have not already started projects.
- ❖ Users in all segments are becoming increasingly frustrated by the difficulty in locating content and with the quality of web content.

¹ Bishoff, Liz. "Interoperability and Standards in Museum/Library Collaboration: The Colorado Digitization Project." *First Monday*, v. 5, n. 6, June 5, 2000.

- ❖ Institutions are undertaking digitization activities on soft money; there is a need to include digitization activities into operational budgets. This can only be done if the overall cost is lowered by using shared infrastructure.

Goals (detailed objectives, outcomes, activities, and timelines are found in Appendix C):

1) *Development of state-based collaborative museum-library models among partners for digitization, adapted from the CDP.* Each project will address the following questions: What components of the Colorado process and of Colorado-based implementations can be adapted/adopted? How is the state unique, what is different that will cause a modification of the Colorado process? Each state will describe how they modified the Colorado **C4 Model**, implementing the **C4 Model** in the following areas:

Development of a museum/library *collaboration*,
Increased *capacity* for digitization/dissemination,
Increase access to *content*,
Enrichment of end user *capability*, and
Recognition of Museums/Libraries as vital community resources.

Development of a new museum/library *collaboration* will be a primary focus of the project. Three states, Kansas, Nebraska and Wyoming will join Colorado in this initiative. Each state has identified museums and libraries who will participate in this new initiative. Each participant has materials on the project topic, an interest in digitization as a means of increasing access to primary source materials, and an interest in working with other cultural heritage institutions.

One of the objectives of the goal, to increase *capacity* for digitization, is development of train-the trainer program that provides local practitioners with instructional material and tools to implement state-based programs modeled on the CDP training programs that address the full range of digitization activities. Approximately 30 to 40 staff in each state will be trained during the grant.

In order to increase *content*, we will conduct a pilot project of digitizing collections related to Western Trails. We will collaborate with four-six cultural heritage institutions from each state in creating the collection. Using the commonly agreed to standards for scanning, we will create at least 20,000 digital objects on the topic of Western Trails. Using agreed-to standards/best practices for metadata, participants will create appropriate metadata for the project's digital objects.

In order to enrich end user *capability*, the digital objects will be accessible on project participants' web sites. We will create a separate website of exhibits on the Western Trails topics that will be associated with the CDP website. This same site will link to state-based directories of collections and project partners. We will also implement a model for interoperability, providing end user search access to the digital objects found in all project participant collections without having to know which cultural heritage collection is likely to contain specific information.

By enhancing access to primary resource collections, through an interdisciplinary web-based approach awareness of the essential roles played by cultural heritage organizations in their communities will be increased.

2) *Enable a greater understanding of museum/library audiences, especially through their digital environments.* The CDP market segmentation matrix (Appendix D) will be reviewed and amended, enabling a greater understanding of cultural heritage institution audiences especially through their mutual digital environments.

3) *Each state will prepare a customized variation of the CDP collaborative process of implementing the C4 Model.* Each participant will adopt the collaboratively developed standards for metadata creation and management, and adapt the searching, training, and project management to their local circumstance. Some of the factors affecting model modification include state and local politics, current level of digitization activities, geography of the state, local resource sharing objectives, current technological solutions, funding, and existing level of museum/library collaboration. One or more of these factors will affect each state. While we are interested in testing the CDP process, we are also interested in the extensibility of specific elements of the process. For instance, CDP has regionally based scan centers and a decentralized, regionally-based training program. We are interested to see if this method of capturing images works to "increase *capacity* for digitization/dissemination" in another state, or if some states will need to establish a centralized scanning structure to realize the same increase in *capacity*. Another specific example is in the area of access. CDP established a single union catalog (Appendix F), *Heritage*, created with metadata from project participants using their own systems. Project partners may chose to add their data to the CDP *Heritage* catalog, or they may adapt the model by creating a similar database, for instance, using library system software supported with crosswalks allowing contribution from museum systems. Factors leading to these decisions may be geographical, or political, and will impact developing collaborative relationships.

4) *The Western Trails Project will meet the infrastructure and toolset needs of an interstate digitization collaborative.* Exploration of the issues related to collaborative digitization, including expanding local *capability* and *capacity* to undertake digitization projects, the need for a common set of scanning and metadata standards, issues related to multi-state, multi-cultural heritage institution resource sharing and legal issues, staff and management training, etc. In order to provide infrastructure support for the Western Trails Project, we will develop a common set of tools based on the CDP tool set to support digitization activities at the local level-determining the adaptability of the Colorado tool set. The tool set in use by the CDP and available on its website (see Appendix E for Website information) includes standards, best practices and their use, links to white papers and research on other projects and on research, curricular material demonstrating K-12 applications of digital primary resources, equipment specifications for scanning, training programs, a central database for metadata describing digital primary resources, a separate database part of *Heritage* and data entry templates supporting onsite creation of metadata using the Dublin Core standard. Finally, the CDP has developed metadata cross walks that convert MARC records to Dublin Core, as well as museum specific and locally developed metadata. All these tools are available to CDP partners, and are options for this project. The project will develop a common set of standards or best practices for metadata, reviewing the existing CDP standards, based on national standards and best practices. Additionally the project will prepare an EAD definition for the project, which will be based on one of the national definitions – Making of American or the Library of Congress. Institutions using EAD will create collection level MARC records and web-based HTML or XML EAD records.

IMLS Priorities:

The project addresses the IMLS Priority for development of model programs of cooperation between libraries and museums, with emphasis on how technology is used, education enhanced or the community is served.

CDP has been recognized as one of the model programs of museum/library cooperation in the field of digitization. It has drawn attention from a number of states including California, North Carolina, Missouri, and Washington, as well as regional library systems within state collaborative digitization efforts. The current proposal seeks to extend the CDP process into other states exploring the degree to which the process must be modified to succeed in different environments. An outcome of this project will be a set of variants on the CDP process that reflect the different political, geographic, funding, technical

and collaborative environments existing in the four partner states. The process is inherently collaborative involving four types of cultural heritage institutions across the four states. At the same time the project will strive to recognize and assure the distinct requirements, contributions, etc. of both the states and the individual participants.

The project will utilize technology to bridge the differing traditions of description and access held by museums and libraries. The project will develop a commonly agreed to set of standards/best practices for metadata and scanning, as well as a common collection policy/statement. The project will expand the participating institutions knowledge and use of digital technology for increasing access to special collections and unique resources on the topic of Western Trails. Key to success is development of a solution that provides interoperability between the collections, based on agreed to standards.

This project will expose 100-150 practitioners to the full range of issues associated with a collaborative based digitization initiative. Their knowledge base will be enriched in the full range of issues associated not only with digitization, but also development of skills and expertise in museum/library collaboration that will extend beyond the duration of this project. Digitization is the activity around which the collaborative experience will be built; the skills developed through this experience will allow the project participants to develop future museum/library collaborative initiatives, as well as undertake future digitization initiatives. A new network of expertise will be developed both within the states and across the region.

Community served through partnership: Never before have so many disparate organizations united in an effort to meet the recreation, information, education and scholarly information needs on the topic of Western Trails. Library and museum audiences will benefit from such partnership, both directly and indirectly. This project proposes creation of a specific new resource of primary source materials related to Western Trails; at the same time the interstate collaboration involved in achieving this goal has the potential to surpass the specific resource in impact over time.

National Impact:

This project is focusing on issues of national importance: library/museum collaboration, development of digital collections representing our national heritage through digitizing special collections and unique resources of our cultural heritage institutions, and adoption of new and emerging standards and technology to deliver these resources. There are many examples of library and museum collaboration involving three-five partners from the same locale or state. Since 1999 several statewide initiatives have emerged, with the Colorado project being the most advanced, bringing together almost 50 different institutions into one collaborative initiative. Today North Carolina, Missouri and Washington are developing statewide initiatives.

However, much of the cultural heritage of our country is not limited by the geo-political boundaries of a state. Our heritage comes from a time when there were no state borders, or from times where "territories" had different boundaries, and when the United States had very different relationships with its neighbors to the north and south. To get the true picture of our heritage, we must bring together the resources of our region, working on multi-state and multi-cultural heritage institution initiatives.

This project is the first of its kind, bringing together four states from the Mountain Plains region, testing the ability to develop and adopt a common set of standards, address the issue of interoperability across state borders, and the deliver to the people of the nation a new perspective on a topic of importance to the West – Western Trails.

Adaptability:

Through the Internet and the project website, the materials, toolkit, training materials, etc. will be made available to others wishing to undertake a multi-state digitization project. These resources will also help other states feel confident that they can work to create state-wide initiatives by demonstrating that the Colorado project can be replicated in other states as well. The model developed by this initiative will lay a pattern for other regional initiatives, as our country is made up of many regions-Pacific Northwest, New England states, states of the Southeast, and the Great Lakes region. Our model will demonstrate how each state can adapt the CDP model to their unique requirements. We will show how multiple states and institutions can work together to deliver a single virtual set of resources. We will demonstrate that commonly developed sets of standards or best practices based on national standards, can work for multiple types of cultural heritage institutions. This project will also offer several options for dissemination/access by the general public.

Design:

The project is building on the Colorado Digitization Project, which has been identified as a significant model for collaborative digitization. The project has demonstrated that institutions big and small, urban, suburban and rural from all four types of cultural heritage institutions can digitize portions of their collection to the same standards of quality, description and access. (See Appendix F for screen prints from the CDP Heritage global catalog with standards-compliant metadata from a variety of partners.) The project has demonstrated that a state's heritage can be built from the grassroots, through training, provision of quality scanning equipment, and development of an infrastructure that support both the collaborative itself and the digital content. Many states are interested in emulating the CDP, yet the CDP recognizes that the model cannot be implemented in every state the same way. Therefore the CDP working with three other states will explore how the CDP model must be adapted or modified to meet the unique requirements of a state. Each participating state will explore the components of the CDP model, adopt, modify or discard the component based on their unique requirements. One of the outcomes will be the development of additional models for collaboration on digitization projects.

Each project will design their own approach to both collaboration and interoperability. In most cases the projects include individuals who are experienced in digitization and those who aren't. All project participants have indicated a strong commitment to continuing one or more aspects related to the project following conclusion of the project. The training in digitization will support future digitization activities of the institution as well as specific project associated with this project.

In addition to each state working on their own model, this project will address the range of issues associated with development of a multi-state initiative. The project will establish working groups that will address the governance of the project, the development of standards, etc. The results of this multi-state collaborative and its successes and failures will be discussed in the project reports, as well as through its dissemination program.

The digital content and the websites associated with each project will continue to exist through the participating institutions. The images will be archived in state-based repositories, and metadata will be held and maintained in local catalogs. Each partner will design an appropriate plan for continuity and digital preservation. See the discussion of sustainability below.

Management Plan:

The University of Denver and the Colorado Digitization Project have a demonstrated record of success, which will be carried over to this project. Each state has committed local resources to this initiative, including a state-based project coordinator (Appendix B). The Project will be managed by Liz Bishoff, current CDP Project Director. Liz will be responsible for overall direction of the project, project budgeting and monitoring, planning responsibilities, development of the collaborative and directing of the

technical components of the project. Nancy Allen will continue as the Principal Investigator for the Project. The University of Denver will be responsible for contracting and financial aspects of the project. Sue Kriegsman, CDP Project Coordinator will be responsible for many of the operational activities, including development and implementation of the train the trainer program, communication among the states, working with the working groups, and resolving technology-based issues related to interoperability. She has extensive experience in this area, training more than 300 individuals in Colorado and daily coordination of the CDP projects.

Personnel:

Project personnel include a project coordinator from each state. These individuals are employees of their respective state library. They all have extensive experience in managing federal grants through the IMLS funded state grants. Additionally they have developed solid relationships with the project participants in each state. Each participating organization (libraries and museums) will have a project coordinator. These individuals are archivists, librarians, or museum curators with expertise in preservation and archiving of primary source materials. Additionally each state will bring expertise in organization of information, selection of resources, and technology supporting web-design and information retrieval. They will receive training on the full range of digitization activities. As project director, Liz Bishoff brings extensive experience in building collaboratives, applying technology to cultural heritage institution activities, metadata, and management of digitization initiatives from her work with the Colorado Digitization Project and through her previous employer OCLC, Inc. Sue Kriegsman, the CDP Project Coordinator, brings to this project her experience as an archivist, cataloger and nearly 18 months with the Colorado Digitization Project. The technical support for the project will come from staff at the Colorado Alliance of Research Libraries (Alliance) and the Colorado State Library's Access Colorado Libraries Network (ACLIN). These computing professions have extensive experience with metadata standards, database development and maintenance, the OCLC SiteSearch software, 239.50 protocol, web design and archiving of digital content. Both organizations worked with the CDP on their initial project developing the *Heritage* database, Dublin Core based record entry system, and creation of the *Heritage* web page. The Bishoff Group has been responsible for the development and maintenance of the CDP website. Dave Bishoff, a principal in the Bishoff Group, has lead the redesign of the CDP website, identified new links, incorporated online registration, digital images, and other facets of the website management. He has experience working with the ACLIN staff, resulting in a smooth connection between the *Heritage* website and the CDP web page. (Appendix G contains resumes)

Project Evaluation:

The project will use the IMLS Outcomes Based Evaluation system. Appendix C provides the goals, objectives and outcomes for each component of the project. Appendix H shows the measurement proposed for the outcomes. In addition to measuring the outcomes, the project will also measure outputs, including the number of people being trained, the number of images created, and the number of website hits. Many of these outputs are shown with activities in Appendix C.

We will use a variety of assessment techniques, including surveys, focus group interviews, and case studies to assess the outcomes. System-generated data will be assessed as well, as an output measure of use. Allen and Bishoff have been trained in outcomes assessment through an IMLS workshop in December 1999. In addition, state library LSTA coordinators from each state have also attended this workshop. State Project Partners will consult with their LSTA coordinators in developing state outcome-based plans. Bishoff and Allen will work with each state in implementing outcomes based assessment. Tom Fry, Penrose Library Associate Director/Services Planning, will design and implement the project evaluation, including development and execution of surveys and conducting of at least three focus group interviews of the individuals participating in the collaborative.

Dissemination:

We propose to disseminate information on the project in the following manner:

- participation in appropriate IMLS and NSF digital library projects, e.g. the Web- Wise Conference. presentations at national library , museum, archives and historical society conferences.
- published articles by project participants in state journals and newsletters.
- published article on the multi-state initiative.
- attend state professional association conferences and make presentations. This includes library, museum, historical society, archival, and school media specialists associations as appropriate in each state, or on a regional basis.
- issue press releases about the project through the CDP and state library public relations offices.
- development of brochures, etc. on the project, and
- through the project websites.

Sustainability:

One benefit from participation in this project will be the experience each participant derives from involvement in this multi-state, multi-cultural heritage institution project. They will learn new ways of doing old things, they will learn to use new technologies to deliver traditional materials, and they will learn how to manage a digitization project. Each state will come away with a model for further museum/library collaboration on digitization and a better understanding of the myriad of issues associated with this type of an initiative. Increased knowledge put into practice is inherently sustainable.

Websites hosting the digital images will be maintained over time by the individual institutions. Websites have become a mainstay of information delivery, learning environment and promotion among libraries and museums so sustainability is assured.

Sustainability of digital master images will be maintained in one of three ways --establishment of a centralized state-based digital archive, contribution to the existing CDP digital archive or archiving on CD ROM disks. All three options require regular updating of retrieval software and image migration. These are in addition to local responsibility for updating and backing-up of their digital images.

For states with a union catalog, the union catalog will be backed up regularly, assuring sustainability of metadata. Additionally, individual institutions will be required to backup local systems that support their metadata. The union catalog record can also serve as a backup file for the local institution.

Detailed Timeline

October 2001

- Receive funding
- Begin project

Fall 2001

- Finalize project participants, establish working groups, contract with state partners
- State plans are completed
- User market segmentation reviewed and enhanced.
- States initiate planning meetings with project participants
- CDP Project Director site visits begin

Winter 2002

- Working groups start plans for project metadata, scanning, collections
- State websites and CDP Western Trails websites under development
- Complete contracts with project participants and award sub-grants
- Training programs developed

Spring 2002

- Working groups complete plans for...
 - Scan standards
 - Metadata standards
 - Collection plan
 - Technical and interoperability
- Train the trainer program begins
- Project training at the state level is implemented
- Projects select resources for their project

Summer 2002

- Begin digitization activities
- Interoperability solution begins
- Initiate web design for exhibits

Fall 2002

- Digitization activities continue

Winter 2003

- Scanning and metadata creation continues
- Project director site visits to each state
- Implementation of interoperability solution continues

Spring 2003

- Begin development of the content for the web exhibits
- Develop test files for metadata databases
- Conference of all participants
- Metadata loads into interoperability solution, with links to images
- Scanned images begin to be made available
- Test interoperability solutions

Summer 2003

- Load metadata into *Heritage* and state based solutions.
- Assessment and evaluation, including user focus groups
- Western Trails website with web exhibits available.
- Western Trails website complete.
- Final report

Project Budget Form

SECTION 1: DETAILED BUDGET

Year 1 – Budget Period from October/ 1/2001 to September/ 30/2002

Name of Applicant Organization University of Denver, Penrose Library

IMPORTANT! READ INSTRUCTIONS ON PAGES 2.3-2.4 BEFORE PROCEEDING.

SALARIES AND WAGES (PERMANENT STAFF)

NAME/TITLE	No.	METHOD OF COST	IMLS	APPLICANT	PARTNER(S)	TOTAL
Nancy Allen, Pr. Invest.	(1)					
Toni Miller, Admin. Asst., DU	(1)					
Eric Hansen	(1)					
Beth Goble	(1)					
Venice Beske	(1)					
CDP Steering Ctte	(1)					
Working Group e-meetings	(32)					
Participant proj. mgmt	()					
Western Trails Steer. Ctte	(8)					

SALARIES AND WAGES (TEMPORARY STAFF HIRED FOR PROJECT)

NAME/TITLE	No.	METHOD OF COST COMPUTATION	IMLS	APPLICANT	PARTNER(S) (IF APPLICABLE)	TOTAL
Project Coordinator	(1)					
Office support	(1)					
	()					

FRINGE BENEFITS

RATE	SALARY BASE	IMLS	APPLICANT	PARTNER(S) (IF APPLICABLE)	TOTAL
Nancy Allen					
Toni Miller					
Office support					
Eric Hansen					
Beth Goble					
Venus Beske					
CDP Steering Committee					
Western Tr. Steering Ctte					
Working Group					
Participant proj. mgrs.					
Project Coordinator					
TOTAL FRINGE BENEFITS					

CONSULTANT FEES

NAME/TYPE OF CONSULTANT	RATE OF COMPENSATION (DAILY OR HOURLY)	NO OF DAYS (OR HOURS) ON PROJECT	IMLS	APPLICANT	PARTNER(S) (IF APPLICABLE)	TOTAL
Liz Bishoff		.7 fte				
State Project Managers	\$10,000/yr		\$30,000			\$30,000
Technical consultants	negotiated		\$10,000			\$10,000
CDP Web design & mtn.	negotiated		\$ 5,000			\$ 5,000
Scan Center Mgrs in Colo.	3 @ \$1,000/yr		\$ 3,000			\$ 3,000
TOTAL CONSULTANT FEES			\$ 90,500			\$107,500

Project Budget Form

SECTION 1: DETAILED BUDGET CONTINUED

Year 1

TRAVEL							
FROM/TO	NUMBER OF: PERSONS DAYS	SUBSISTENCE COSTS	TRANSPORTATION COSTS	IMLS	APPLICANT	PARTNER(S) (IF APPLICABLE)	TOTAL
Denver rt DC	(2) (2)	\$ 660	\$ 2,040	\$ 2,700			\$ 2,700
Denver rt Dallas	(2) (2)	\$ 540	\$ 800	\$ 1,340			\$ 1,340
Denver rt KS	(2) (2)	\$ 492	\$ 800	\$ 1,292			\$ 1,292
Denver rt NE	(2) (2)	\$ 404	\$ 800	\$ 1,204			\$ 1,204
Denver rt WY	(2) (2)	\$ 476	\$ 138	\$ 614			\$ 614
Website plng	(3) (2)	\$ 512	\$ 869	\$ 869		\$ 512	\$ 1,381
Technical cttle	(3) (2)	\$ 512	\$ 869	\$ 869		\$ 512	\$ 1,381
Scanning	(3) (2)	\$ 512	\$ 869	\$ 869		\$ 512	\$ 1,381
Metadata	(3) (2)	\$ 512	\$ 869	\$ 869		\$ 512	\$ 1,381
Durango frng	(1) (4)	\$ 488	\$ 400	\$ 888			\$ 888
Springs training	(1) (2)	\$ 222	\$ 41	\$ 263			\$ 263
Ft Collins	(1) (2)	\$ 220	\$ 55	\$ 275			\$ 275
Grand Junction	(1) (4)	\$ 408	\$ 173	\$ 581			\$ 581
TOTAL TRAVEL COSTS				\$ 12,633		\$ 2,048	\$ 14,681

MATERIALS, SUPPLIES AND EQUIPMENT					
ITEM	METHOD OF COST COMPUTATION	IMLS	APPLICANT	PARTNER(S) (IF APPLICABLE)	TOTAL
Supplies	Estimate		\$2,000		\$ 2,000
Archiving/image server			\$5,000		\$ 5,000
Kansas equipment				\$8,700	\$ 8,700
TOTAL COST OF MATERIALS, SUPPLIES, & EQUIPMENT		\$	\$ 7,000	\$8,700	\$15,700

SERVICES					
ITEM	METHOD OF COST COMPUTATION	IMLS	APPLICANT	PARTNER(S) (IF APPLICABLE)	TOTAL
Digitization subgrants	\$2,500/project; 5 per state (3) plus \$4620 x 8 in Colorado	\$74,460			\$ 74,460
SiteSearch Maintenance		\$ 6,000			\$ 6,000
Metadata creation/KS	2,000 images @ \$12/image			\$24,000	\$ 24,000
Metadata creation/WY	2,000 images @ \$12/image			\$24,000	\$ 24,000
Metadata creation/NE	2,000 images @ \$12/image			\$24,000	\$ 24,000
Metadata creation/CO	14,000 images @ \$12/image			\$168,000	\$168,000
TOTAL SERVICES COSTS		\$ 80,460		\$240,000	\$320,460

OTHER					
ITEM	METHOD OF COST COMPUTATION	IMLS	APPLICANT	PARTNER(S) (IF APPLICABLE)	TOTAL
TOTAL OTHER COSTS		\$			

TOTAL DIRECT PROJECT COSTS	\$ 206,584	\$ 54,840	\$ 413,583	\$675,007
----------------------------	------------	-----------	------------	-----------

Project Budget Form

SECTION 1: DETAILED BUDGET CONTINUED

Year 1

INDIRECT COSTS

Select either item A or B and complete C. (See section on Indirect Costs, page 2.4)

Applicant organization is using:

- A. an indirect cost rate which does not exceed 20% of modified total direct costs – may be listed only as cost sharing.
- B. an indirect costs rate negotiated with a Federal agency (*copy attached*) – may be requested from IMLS, based *only* on *modified* direct costs (as specified in the negotiated agreement) that are charged to IMLS; additional indirect costs based on the applicant's partner's contributions may be listed only as cost sharing.

Office of Naval Research

June 30, 2002

Name of Federal Agency

Expiration Date of Agreement

C. Rate base(s) Amount(s)

<u>27</u>	%	of	\$ <u>\$ 189,084</u>		\$ <u>51,053</u>
	%	of	\$ _____	=	\$ _____
	%	of	\$ _____	=	\$ _____

	IMLS	APPLICANT	PARTNER(S) IF APPLICABLE	TOTAL
TOTAL INDIRECT COSTS CHARGED TO	\$ <u>39,708</u>	\$ <u>11,345</u>	_____	\$ <u>51,053</u>

Project Budget Form

SECTION 1: DETAILED BUDGET

Year 2 (IF APPLICABLE) – Budget Period from October / 1 / 2002 to September / 30 / 2003

Name of Applicant Organization University of Denver, Penrose Library

IMPORTANT! READ INSTRUCTIONS ON PAGES 2.3-2.4 BEFORE PROCEEDING.

SALARIES AND WAGES (PERMANENT STAFF)

NAME/TITLE	No.	METHOD OF COST COMPUTATION	IMLS	APPLICANT	PARTNER(S) (IF APPLICABLE)	TOTAL
<u>Nancy Allen, Pr. Invest.</u>	<u>(1)</u>					
<u>Toni Miller, Admin. Asst., DU</u>	<u>(1)</u>					
<u>Eric Hansen</u>	<u>(1)</u>					
<u>Beth Goble</u>	<u>(1)</u>					
<u>Venice Beske</u>	<u>(1)</u>					
<u>CDP Steering Cttee</u>	<u>(11)</u>					
<u>Working Group e-meetings</u>	<u>(32)</u>					
<u>Participant proj. mgmt</u>	<u>()</u>					
<u>Western Trails Steer. Cttee</u>	<u>(8)</u>					
	<u>1</u>					

SALARIES AND WAGES (TEMPORARY STAFF HIRED FOR PROJECT)

NAME/TITLE	No.	METHOD OF COST COMPUTATION	IMLS	APPLICANT (IF APPLICABLE)	PARTNER(S)	TOTAL
<u>Project Coordinator</u>	<u>(1)</u>					
<u>Office support</u>	<u>(1)</u>					

FRINGE BENEFITS

RATE	SALARIES	IMLS	APPLICANT	PARTNER(S) (IF APPLICABLE)	TOTAL
<u>Nancy Allen</u>					
<u>Toni Miller</u>					
<u>Office support</u>					
<u>Eric Hansen</u>					
<u>Beth Goble</u>					
<u>Venice Beske</u>					
<u>Project Coordinator</u>					

CONSULTANT FEES

NAME/TYPE OF CONSULTANT	RATE OF COMPENSATION (DAILY OR HOURLY)	NO OF DAYS (OR HOURS) ON PROJECT	IMLS	APPLICANT	PARTNER(S) (IF APPLICABLE)	TOTAL
<u>Liz Bishoff</u>		<u>.7 fte</u>				
<u>State Project Managers</u>	<u>\$10,000/yr</u>		<u>\$30,000</u>			<u>\$30,000</u>
<u>Evaluator</u>	<u>\$500/day, 10 days</u>			<u>\$ 5,000</u>		<u>\$ 5,000</u>
<u>Technical consultants</u>	<u>negotiated</u>		<u>\$38,000</u>		<u>\$13,700</u>	<u>\$51,700</u>
<u>CDP Web design & mtn.</u>	<u>negotiated</u>		<u>\$ 7,500</u>			<u>\$ 7,500</u>
<u>Scan Center Mgrs in Colo.</u>	<u>3 @ \$1,000/yr</u>		<u>\$ 3,000</u>			<u>\$ 3,000</u>
TOTAL CONSULTANT FEES			\$ 121,000	\$22,000	\$13,700	\$156,700

Project Budget Form

SECTION 1: DETAILED BUDGET CONTINUED

Year 2

TRAVEL						
FROM/TO	NUMBER OF: PERSONS DAYS	SUBSISTENCE COSTS	TRANSPORTATION COSTS	IMLS	APPLICANT	PARTNER(S) (IF APPLICABLE)
Denver rt DC	(2) (2)	\$ 660	\$ 1,000	\$ 1,660		\$ 1,660
Denver rt Plind	(1) (2)	\$ 115	\$ 400	\$ 515		\$ 515
Denver rt KS	(1) (2)	\$ 246	\$ 400	\$ 646		\$ 646
Denver rt NE	(1) (2)	\$ 202	\$ 400	\$ 602		\$ 602
Denver rt WY	(1) (2)	\$ 238	\$ 69	\$ 307		\$ 307
Conf of Partcps	(20) (2)	\$ 2,560	\$ 4,745	\$ 4,745		\$ 2,560
TOTAL TRAVEL COSTS				\$ 8,475		\$ 11,035

MATERIALS, SUPPLIES AND EQUIPMENT					
ITEM	METHOD OF COST COMPUTATION	IMLS	APPLICANT	PARTNER(S) (IF APPLICABLE)	TOTAL
Supplies	Estimated		\$2,000		\$ 2,000
TOTAL COST OF MATERIALS, SUPPLIES, & EQUIPMENT		\$	\$2,000		\$ 2,000

S E R V I C E S						
ITEM	METHOD OF COST COMPUTATION	IMLS	APPLICANT	PARTNER(S) (IF APPLICABLE)	TOTAL	
Digitization subgrants	\$2,500/project; 5 per state (3) total of \$2380 ea for 8 CO projects	\$56,540			\$ 56,540	
SiteSearch Maintenance		\$ 6,000			\$ 6,000	
	TOTAL SERVICES COSTS	\$ 62,540			\$ 62,540	

OTHER					
ITEM	METHOD OF COST COMPUTATION	IMLS	APPLICANT	PARTNER(S) (IF APPLICABLE)	TOTAL
TOTAL OTHER COSTS		\$			

TOTAL DIRECT PROJECT COSTS	\$ 215,926	\$ 45,285	\$ 156,675	\$ 417,886
----------------------------	------------	-----------	------------	------------

INDIRECT COSTS

Select either item A or B and complete C. (See section on Indirect Costs, page 2.4)

Applicant organization is using:

- A. an indirect cost rate which does not exceed 20% of modified total directs costs – may be listed only as cost sharing.
- B. an indirect costs rate negotiated with a Federal agency (*copy attached*) – may be requested from IMLS, based *only* on *modified* direct costs (as specified in the negotiated agreement) that are charged to IMLS; additional indirect costs based on the applicant's partner's contributions may be listed only as cost sharing.

Office of Naval Research
Name of Federal Agency

June 30, 2002
Expiration Date of Agreement

C. Rate base(s)	Amount(s)	
27 %	\$ 173,426	= \$ 46,825
% of	\$	= \$
% of	\$	= \$

	IMLS	APPLICANT	PARTNER(S) IF APPLICABLE	TOTAL
TOTAL INDIRECT COSTS CHARGED TO	\$ 36,419	\$ 10,406		\$ 46,825

Project Budget Form

SECTION 2: SUMMARY BUDGET

Name of Applicant Organization University of Denver, Penrose Library

IMPORTANT! READ INSTRUCTIONS ON PAGES 2.3-2.4 BEFORE PROCEEDING.

DIRECT COSTS

	IMLS	Applicant	Partner(s)	TOTAL
SALARIES & WAGES				
FRINGE BENEFITS				
CONSULTANT FEES	<u>\$ 211,500</u>	<u>\$ 39,000</u>	<u>\$ 13,700</u>	<u>\$ 264,200</u>
TRAVEL	<u>\$ 21,108</u>	<u>\$</u>	<u>\$ 4,608</u>	<u>\$ 25,716</u>
MATERIALS, SUPPLIES & EQUIPMENT	<u></u>	<u>\$ 9,000</u>	<u>\$ 8,700</u>	<u>\$ 17,700</u>
SERVICES	<u>\$ 143,000</u>	<u></u>	<u>\$ 240,000</u>	<u>\$ 383,000</u>
OTHER	<u></u>	<u></u>	<u></u>	<u></u>
TOTAL DIRECT COSTS	<u>\$ 422,510</u>	<u>\$ 100,125</u>	<u>\$ 570,258</u>	<u>\$ 1,092,893</u>
INDIRECT COSTS*	<u>\$ 76,127</u>	<u>\$ 21,751</u>	<u>\$</u>	<u>\$ 97,878</u>

*If you do not have a current Federally negotiated rate, your indirect costs must appear in the Applicant or Partner columns only.

If you have a current Federally negotiated rate, you may request indirect costs from IMLS only on the direct project costs requested from IMLS.

TOTAL PROJECT COSTS \$ 1,190,771

AMOUNT OF CASH-MATCH \$ \$ 8,700

AMOUNT OF IN-KIND CONTRIBUTIONS \$ 121,876 \$ 561,558
(INSTITUTIONAL COST-SHARING), INCLUDING INDIRECT COSTS

TOTAL AMOUNT OF MATCH (CASH & IN-KIND CONTRIBUTIONS) \$ 692,134

AMOUNT REQUESTED FROM IMLS, INCLUDING INDIRECT COSTS \$ 498,637

PERCENTAGE OF TOTAL PROJECT COSTS REQUESTED FROM IMLS 42%
(MAY NOT EXCEED 50% IF REQUEST EXCEEDS \$250,000 - RESEARCH PROJECTS EXCEPTED, SEE COST SHARING ON PAGE 1.7)

Have you received or requested funds for any of these project activities from another Federal agency?
(Please check one) ☐ Yes ☒ No

If yes, name of agency

Date of application or award Amount requested or received \$

Budget Narrative

Salaries and Wages : Permanent Staff'

Nancy Allen, University of Denver, is the Principal Investigator. Allen's activities include project planning, financial management and budget monitoring, attending meetings, speaking, and conducting other project business. The required time is based on our 1999-2001 project experience.

Hansen, Goble and Beske are the project coordinators from Kansas, Nebraska, and Wyoming. Their in-kind contributions reflect their estimates of the time they will spend on their project leadership roles, training responsibilities, project promotion, technical support, etc. within their states. This in-kind match will be supplemented by sub-grants to the state to support the state-wide collaboration activities, including local training, scanning equipment and web design.

Toni Miller, administrative assistant in the Penrose Library of the University of Denver, will continue her support of the CDP. Her responsibilities include photocopying, reimbursement processing, telephone support, budget monitoring, meeting arrangements, liaison with the University of Denver Sponsored Research, and many other administrative responsibilities that arise including supervision of hourly clerical staff.

CDP Steering Committee: The Steering Committee of 11 meets bi-monthly, for two hours each meeting. Additionally, the members work on sub-committees including planning and management. The Committee will advise on this project, responding to the many issues expected to impact the CDP. The CDP Steering Committee will contribute individual expertise, where they are involved in projects on this grant or management of technical operations. The committee member time is represented as an in-kind contribution.

Working Group meetings: The working group members will contribute significant time to the project, as they will be responsible for developing the Western Trails standards, collection policy, and web site design. Each group will have an initial face to face meeting as well as ongoing meetings via listservs, electronic mail and conference calls. Their time on these activities are reflected as in-kind contributions. There are eight members on each team. The in-kind salary shown is for twelve three-hour meetings per year at an estimated \$20/hour per attendee.

Participant project management: There is considerable matching funds in the time contributed by each of the 23 participating organizations in planning, managing, and implementing local projects. On the basis of our experience in Colorado, we know that one person in each of the participating organizations will spend about 10% of his or her time managing the on-site project. Additional staff will be used for scanning and creation of metadata. While each of these organizations will receive sub-grants to undertake the digitization project, these small grants are more than matched in time managing and executing the projects. The grants themselves are intended to support photographer contracts related to image capture, temporary staff for metadata creation and scanning, undertaking research, or web site development. Due to the large number of participants we have not reflected all in-kind contributions, as the project already exceeds the required 50% match.

Western Trails Project Steering Committee: The committee will have seven members (one representative from each state, plus the CDP Project Director, representatives from the University of Denver and Denver Museum of Nature and Science.) The Steering Group has already met twice for two days to plan this project. One additional 2 day planning meeting will be held the first year. Following that meeting monthly project meetings will be held via conference call, Email will be used for other communications.

Salaries and Wages: Project Staff:

The project coordinator (Sue Kriegsman) will allocate 50% of her time to this project. This position is responsible for developing and delivering all training programs, for assisting with implementation of technical solutions related to interoperability, and for communication with all project participants and partner organizations on implementation of standards following training.

In addition to the support provided by Toni Miller, the applicant will provide hourly office support for Miller, averaging 10 hours per week.

Fringe Benefits:

The University of Denver fringe rates vary, according to the category of employee, and according to funding sources. Staff funded entirely through sponsored programs have a different fringe rate than staff funded by the University of Denver Sponsored Research rate. Fringe rates for each state are used for staff from the state.

Consultant fees:

Liz Bishoff, the project director, is an independent consultant. The University of Denver will contract with her for this project, as it did for the Colorado Digitization Project. Bishoff will dedicate 70% of her time to this project. Fifty percent will be funded by IMLS. The CDP will fund the balance of her X per year contract through planned revenue from CDP training and consulting activities.

State project coordinators: Each state will receive a \$10,000 grant per year to manage all aspects within that state of developing the collaborative for that state. These funds can be used to support the planning activities within the state, development of the website for the state project, promotional programs or other required activities that support the initiative. Fifty percent is awarded in Year 1 and the remainder in Year 2.

Technical consultants: The University of Denver will contact with the State Library of Colorado and the Colorado Alliance of Research Libraries to support the development and implementation of the interoperability solution for the project, design the SiteSearch, Web-Z interface and support the digital archiving for the Colorado collections. Brenda Bailey (CSL) and George Machovec (Alliance) will be the leaders on their respective projects. The CSL is experienced in all aspects of the OCLC SiteSearch software, which is used to deliver *Heritage* Gateway to Colorado's Digital Collections. The technical staff at the Alliance will create additional crosswalks to support the use of both MARC, Dublin Core and other formats of metadata. These staff developed the crosswalks and interoperability solutions being used for CDP. The CSL is making significant in-kind contribution each year of the project.

Web design and maintenance for the Western Trails component of the CDP website will be initiated in year one. The site will gather information to be shared by the Western Trails partners and participants, listing collections to be digitized, and other information to be put on the site. During the second year, funds will be used to develop an exhibit of Western Trails material integrating materials from all project participants. The Bishoff Group will develop the Western Trails website and continue support for the CDP website. The Project will contract with Carson Block, Technical Coordinator, High Plains Regional Library System (Greeley, CO), to develop the Western Trails exhibit website. Carson will work with the Collection working group and the web design working group on this effort.

Scan Centers: Additional scanning in Colorado requires that three of the regional scanning center sites be supported with a token amount of \$1000 each per year to continue to maintain and support the space and equipment being provided to the CDP.

Evaluator: The project evaluator will be Tom Fry, University of Denver, Penrose Library. Tom will be responsible for designing the project evaluation component, developing and conducting focus group interviews and a survey. A fee of \$5,000 is allocated from IMLS funds for this effort.

Travel:

The first line represents the total of \$4000 in travel to IMLS-related programs split across two years. This would be travel for Allen and/or Bishoff. Since both Allen and Bishoff have already attended the IMLS Outcomes Assessment training in Washington, this travel will enable them to attend Web Wise, IMLS/NSF programs, or other travel on behalf of IMLS. The destinations are not known for this reason, although some of the travel would be to Washington DC, so the DC per diem figure is used to calculate this amount.

The second line represents travel to two national museum conferences for dissemination purposes. Because CDP is relatively visible in the library community, most dissemination travel for giving papers in library conferences is covered by the organization inviting Allen or Bishoff to present. Therefore, only two conferences in the museum community are represented in this budget.

The next three lines represent travel to each state by Kriegsman and Bishoff for training and site visits. These visits will be spread across both years.

The next four lines are travel for initial working groups to be held in the first year of the project. Only the transportation costs for Kansas, Wyoming and Nebraska members are shown. Subsequent communications will be through conference calls and technology-based communication. Wyoming participants will be reimbursed for mileage. Colorado participants will contribute mileage as in-kind support. Each participant will fund lodging for these meetings.

Colorado training trips will support training of new Colorado participants. Wyoming organizations will be welcome to attend the Fort Collins training, since that location is within driving distance. .

In the second year travel budget, we show a conference of all Western Trails participants. This will enable a face to face meeting involving libraries, museums, historical societies and archives involved in all four states. This session will be designed so that participants can share information, offer mutual support, and engage in project assessment. This will be an important meeting to achieve the assessment goals, to collect information about the details of the state collaboratives, and share experience on museum/library collaboration.

Materials, supplies, equipment:

General supplies will be supported by the applicant in both years.

An additional server will be funded by the applicant if additional server space is required for the project's digital archive and the website.

Services:

To support digitization project costs, sub-grants will be given to 23 participating organizations in Kansas, Colorado, Nebraska, and Wyoming. As Colorado participants are generally experienced with digitization, they are expected to contribute between 1750-2000 images each vs. 500 per participant in the other states. The Colorado projects will receive \$7,000 sub-grants, each of the non-Colorado projects will receive an average of \$5,000 each. Colorado participants will receive 66% of their grant in Year 1 and 34% in year two. Other participants will receive half one year and half the other year.

The Western Trails project will contribute approximately 34% of the total \$23,000 Site Search maintenance fee of for each of the two years.

Specifications for Projects Involving Digitization

1. Describe types of materials to be digitized (i.e., artifacts, maps, manuscripts, photographs) and number of each:

Colorado, Wyoming, Nebraska, and Kansas participants will create approximately 20,000 new digital objects through this project. The digital objects will be created from a range of primary source materials, including artifacts, photographs, maps, diaries, travel guides, manuscripts, and newspaper articles. Each project description (Appendix B) provides a description of the collection and an estimate of number of physical and digital objects.

2. Identify copyright issues and other potential restrictions:

☒ Public domain ☒ Permissions have been obtained

☐ Permissions to be requested - Plan to address: As part of the contract with each project participant, participants will be required to assure that the materials are either in the public domain or permission has been obtained to use these resources. It is possible that some of the projects will include materials on the Native American Peoples, which may require compliance with the Native American Graves Repatriation Act. Each project participant will be required to address how they are complying with NAGPRA. If they cannot come to agreement with the nations, it will be recommended that they not include these materials.

☒ Privacy concerns - Plan to address: Other issues related to privacy and security will be addressed in one of several ways, including permission prior to digitizing, a policy on reconsideration of the digital object, or a combination of the two.

☐ Other - Explain: _____

3. List the equipment, with specifications, whether purchased, leased, or outsourced, that will be used (e.g., camera, scanner, server): Each project will be creating digital objects in a different way. Kansas is purchasing flatbed scanners for several of their projects. The scanner will be selected to meet the minimum scan standards established by the project. If a project is outsourced the scan standards will be used to determine the equipment requirements or the vendor. At this point, the project partners have agreed to adopt CDP minimum standards for digitization (Appendix I). Current CDP scan center equipment includes: Epson 386LX, Dell 500mhz with 20GB storage, Adobe Photoshop v. 6.0, and Silverfast software. An equivalent scanner (Appendix J) would be purchased by the projects. The workstation to support the scanner will have the following requirements: Pentium III (minimum), 800mhz processor, 128MB SDRAM, keyboard and mouse; minimum of a 19" color monitor; a minimum of 20 GB Ultra ATA Hard Drive; 1.44 Floppy disk; 48X Max Variable CD-ROM drive; v.90/56K PCI modem and a network NIC. Software should include at least Windows 98 operating system and

Office 2000. Optionally, an audio card should be included if the project plans to do digital audio. Estimated price for a Dell Dimension XPS is \$1916.00 with the educational discount.

The CDP digital archive will require additional server space. The project will purchase a Sun Cobalt RaQ4 (Appendix J) which will host the website, support FTP, and its Raid 1 configuration. The total purchase price is \$5,000, including installation and configuration.

4. Specify each type of file format (e.g., TIFF, JPEG) to be produced and anticipated image quality of each (minimum resolution, depth, tone, pixels):

Requirements vary by format. Appendix I lists minimum requirements.

☒ Master: Using the CDP standards, each project will be required to create a Master image.

☒ Access: Using the CDP standards, each project will be required to create an Access image.

☒ Thumbnail: Each project may determine whether they will require a thumbnail image.

CDP recommends that the master image be a facsimile, uncompressed image and that editing not be done on the master, unless a second master is created for those purposes.

5. Describe the quality control plan: For the quality control of the digital object, five attributes will be checked – color, tone, detail of reproduction and resolution, noise and compression effects. A visual inspection of images from the test file for each collection will be made to determine the benchmark. Following completion of the benchmark, the first ten images of each batch scanned will be evaluated and then 10% of the remaining images will be checked against the parameters. (Appendix I)

6. Estimate cost per image. Include costs such as scanning, quality control and indexing. Indicate the basis for calculation: For this purpose, we are only including the costs associated with the research, creation of the metadata and the scanning of the image. Many of the original items are manuscripts, with multiple pages and only one metadata record is required. As a result, we are estimating a cost per image of \$12.

7. Explain how you will describe the content through metadata, including which standard you will use (e.g., MARC, EAD, Dublin Core): The project will use the CDP Metadata Standards and guidelines as the foundation of the project. A working group will review these standards adapting them as appropriate. Kansas Digital Library has metadata standards that will also be reviewed. The CDP has adopted the Dublin Core standard, including definition of mandatory and desirable elements. If an institution doesn't wish to use Dublin Core, they may use MARC or another museum or library protocol for description, which includes the mandatory CDP Dublin Core elements. The CDP has developed software that will convert these different formats to Dublin Core to allow loading into the *Heritage* database. Additionally, the group will develop an EAD definition for the project. Projects may create their records on OCLC, including CORC, a library or museum local system, or a local database application.

8. Describe plans for preservation and maintenance of the digital files after the expiration of the grant period (i.e., storage systems, migration plans, and funding): Each state has defined its plan for preservation and maintenance of the digital file. The states have three options open to them; they may add their digital images to the CDP digital archives, they may establish their own digital archive, or they may have their projects store data on CD ROM. In any case, each state will be responsible for maintaining and upgrading the operating system required to retrieve the data, including backing up the files at least every two weeks. Additionally, digital images will be migrated every three-five years to assure long term sustainability.

9. If you are producing collection-level records, describe plans for submitting collection-level descriptive records to a bibliographic utility, such as Research Libraries Information Network (RLIN) or Online Computer Library Center (OCLC). State reasons for selecting any alternative approaches:

Projects creating Encoded Archival Description records will contribute the collection level records to OCLC, either under their own institution name or under the University of Denver. Many of our projects will be doing MARC records for individual digital objects and contributing them to OCLC. The CDP is exploring with OCLC options for contributing Dublin Core based records to the OCLC CORC project.

10. Describe plans for submitting information about the project to a national level registry of digital resources, such as the Association of Research Libraries' Digital Initiatives Database (<http://www.arl.org/did/>) or OCLC's Cooperative Online Resource Catalog (<http://www.oclc.com/oclc/corc/index.htm>). State reasons for selecting any alternative approaches:

CDP is already listed on the ARL Digital Initiatives Database. The CDP will be responsible for adding the other projects that aren't listed under this new collaborative initiative.

11. Provide URL(s) for applicant's previously digitized collections: URL is <http://coloradodigital.coalliance.org>.